

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2017-3-E
September 5, 2017

IN RE: Annual Review of Base Rates for Fuel)
 Costs of Duke Energy Carolinas, LLC) **SETTLEMENT AGREEMENT**

This Settlement Agreement is made by and among the South Carolina Office of Regulatory Staff (“ORS”), Duke Energy Carolinas, LLC (“DEC” or the “Company”), and the South Carolina Energy Users Committee (“SCEUC”) (collectively referred to as the “Parties” or sometimes individually as a “Party”).

WHEREAS, the above-captioned proceeding has been established by the Public Service Commission of South Carolina (“Commission”) pursuant to the procedures in S.C. Code Ann. §58-27-865 (2015), and the Parties to this Settlement Agreement are parties of record in the above-captioned Docket;

WHEREAS, the Parties have varying legal positions regarding the issues in this case;

WHEREAS, the Parties have engaged in discussions to determine if a settlement of the issues would be in their best interests;

WHEREAS, following those discussions the Parties have each determined that their interests and the public interest, when used herein as defined by S.C. Code Ann. § 58-4-10(B),

would be best served by settling all issues pending in the above-captioned case under the terms and conditions set forth below:

**A. STIPULATION OF SETTLEMENT AGREEMENT, TESTIMONY AND WAIVER
OF CROSS EXAMINATION**

A.1 The Parties agree to stipulate into the record before the Commission the testimony and exhibits of ORS witnesses Willie J. Morgan, Dawn M. Hipp and Gaby Smith without objection or cross-examination by the Parties. The Parties also agree to stipulate into the record, without objection or cross-examination by the Parties, before the Commission, pre-filed direct testimony and exhibits of DEC witnesses Kenneth D. Church; Scott L. Batson (includes redacted public and unredacted confidential version of Batson Exhibit 3); Kimberly D. McGee; Brett Phipps; Jason D. Martin; and the pre-filed direct testimony of Joseph A. Miller, Jr. No other party pre-filed testimony in this Docket. The Parties reserve the right to engage in re-direct of witnesses as may be necessary to respond to issues raised by the examination of their witnesses, if any, by non-parties, parties that are not signatories to this Settlement Agreement, or the Commission.

A.2 The Parties agree that no other evidence will be offered in the proceeding by the Parties other than the stipulated testimony and exhibits and this Settlement Agreement unless the additional evidence is to support the Settlement Agreement, consists of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction or clarification, or consists of a witness adopting the testimony of another if permitted by the Commission. The Parties agree that nothing herein will preclude each party from advancing its respective positions in the event that the Commission does not approve the Settlement Agreement.

B. SETTLEMENT TERMS

B.1 As a compromise to positions advanced by the Parties, the Parties agree to the proposal set out immediately below, and this proposal is hereby adopted, accepted, and acknowledged as the agreement of the Parties.

B.2 Without prejudice to the position of any Party in future proceedings, the Parties agree to accept all recommendations and adjustments in the testimony and exhibits of ORS witnesses.

Avoided and Incremental Costs, Net Energy Metering and Distributed Energy Resources

B.3 The Parties agree for purposes of settlement and without prejudice to the position of any Party in any future proceeding that the 2017 component values for the Net Energy Metering ("NEM") Distributed Energy Resource, as listed below, comply with the NEM methodology approved by the Commission in Order No. 2015-194 and satisfy the requirements of S.C. Code Ann. § 58-40-10, *et seq* (2015).

Components of NEM Distributed Energy Resources Value	Component value (\$ per kWh) Small PV ⁴	Component value (\$ per kWh) Large PV ⁴
Avoided Energy Costs	\$0.03659	\$0.03657
Avoided Capacity Costs	\$0.01399	\$0.01400
Ancillary Services	\$0.00000	\$0.00000
T & D Capacity	\$0.00000	\$0.00000
Avoided Criteria Pollutants ¹	\$0.00003	\$0.00003
Avoided CO2 Emissions Costs	\$0.00000	\$0.00000
Fuel Hedge ²	\$0.00000	\$0.00000
Utility Integration & Interconnection Cost	\$0.00000	\$0.00000
Utility Administrative Cost	\$0.00000	\$0.00000
Environmental Costs	\$0.00000	\$0.00000
Subtotal	\$0.05061	\$0.05060
Line Losses ³	\$0.00238	\$0.00238
Total Value of NEM Distributed Energy Resources	\$0.05300	\$0.05298

Notes

¹ Pursuant to the Settlement Agreement reached in the Company's 2016 fuel case (Docket 2016-3-E), NOx & SOx that were previously included in marginal energy cost have been separately identified. The Company will identify other avoided criteria pollutant cost separately from marginal energy cost in future avoided cost analyses.

² Pursuant to the Settlement Agreement reached in the Docket NO. 2016-3-E – Order No. 2016-687, the Company has calculated the fuel hedge value in a manner consistent with the definition according to the Settlement Agreement in Docket No. 2015-246-E, Attachment A. Because no fuel hedge exists, as calculated, there is no value to assign in the table.

³ Line loss factors are 3.780% on on-peak marginal energy, 3.773% for off-peak marginal energy and 7.136% for marginal capacity per DEC's updated 2017 line loss analysis.

⁴ "Small PV" refers to a load shape reflecting generation installed by a lower usage residential or small commercial/industrial customer. "Large PV" refers to a load shape characteristic of generation by a customer with higher consumption requirements and applies to all other nonresidential rate schedules.

B.4 The Company's proposed revisions to the 2017 Renewable Net Metering Rider RNM, attached hereto as Attachment A, are lawful, just and reasonable, and, if approved by the Commission, shall become effective for service rendered beginning October 2017.

B.5 Distributed Energy Resource Program ("DERP") incremental and avoided costs are required by Act 236 to be allocated and recovered based on the same method used by the utility to allocate and recover variable environmental costs and under a separate DERP component of the overall fuel factor. Therefore, ORS analyzed the actual and estimated DERP incremental costs of

DEC for the period of June 1, 2016 through September 30, 2017 and the forecasted costs for the period October 1, 2017 through September 30, 2018. The Parties agree to ORS's recommended adjustments regarding actual, estimated, and forecasted costs, which result in an over-recovery balance of \$4,496,927 through September 2017, and an under-recovery balance of \$3,643,187 through the September 2018 billing period. The Parties agree that the appropriate fixed charges, per account, to recover DERP incremental costs ("DERP Charge") for the period beginning with the first billing cycle in October 2017 and extending through the last billing cycle of September 2018 are listed below.

	DERP Charge (\$/account)	
	Annual Charge	Monthly Charge
Residential	0.73	0.06
Commercial	22.17	1.85
Industrial	1,090.49	90.87

B.6 The Parties agree that the DERP Charges as set forth above are consistent with S.C. Code Ann. §§ 58-27-865, 58-39-140 and 58-39-150. The Parties agree that the numbers shown above do not include regulatory fees and gross receipts tax and that the charges that will actually be billed will be adjusted to include those amounts.

B.7 ORS also analyzed the actual DERP avoided costs that DEC incurred for the period of June 2016 through May 2017, the estimated costs for the period of June 2017 through September 2017, and the forecasted costs for the period of October 2017 through September 2018. The Parties agree to ORS's recommended adjustments regarding the actual and forecasted costs, which result in an over-recovery balance of \$118,548 through September 2017, and an over-recovery balance of \$118,547 through the September 2018 billing period.

Fuel Expenses and Power Plant Operations

B.8 PURPA capacity costs are required by Act 236 to be passed through the fuel statute and allocated to customers in the same manner as environmental costs. Therefore, ORS analyzed the cumulative PURPA capacity cost over-recovery balance of \$513,718 that DEC reported through September 2017. The ORS calculation of the estimated cumulative PURPA capacity under-recovery balance was \$513,721 through September 2017. The difference is due to rounding.

B.9 ORS analyzed the cumulative over-recovery of environmental costs that DEC incurred for the period June 2016 through May 2017 totaling \$2,985,690 and \$526,602 through September 2017. The Company's cumulative over-recovery for environmental costs, per its testimony in this Docket, as of May 2017 totals \$2,985,686 and through September 2017 the cumulative over-recovery balance totals \$526,599. The difference between DEC's and ORS's cumulative over-recoveries as of actual May 2017 and estimated September 2017 are due to rounding.

B.10 ORS analyzed the cumulative under-recovery of base fuel costs that DEC incurred for the period June 2016 through May 2017 totaling \$7,670,353 and \$17,817,201 through September 2017. DEC's cumulative under-recovery for base fuel costs, per its testimony in this Docket, as of May 2017 totals \$7,670,353, and through September 2017 the estimated cumulative under-recovery totals \$17,817,203. The difference between DEC's and ORS's cumulative over-recovery for the estimated September 2017 total is due to rounding.

B.11 Adding the September 2017 base fuel under-recovery of \$17,817,203, over-recovery capacity costs of \$513,718, the DERP avoided cost over-recovery of \$118,548, and the environmental over-recovery of \$526,599 results in a total under-recovery of \$16,658,343.

B.12 The Parties agree with the balances set forth in the Company's testimony regarding the cumulative PURPA capacity under-recovery as of May 2017 and over-recovery through September 2017, cumulative over-recovery balances for environmental costs as of May 2017 and through September 2017, and the cumulative under-recovery balances for base fuel costs as of May 2017 and through September 2017.

B.13 ORS thoroughly reviewed and investigated DEC's nuclear operations during the review period. As shown in ORS witness Morgan's Exhibit WJM-1, DEC's nuclear fleet achieved an average system capacity factor during the review period of 95.97%. DEC achieved this capacity factor notwithstanding the fact that it experienced four (4) scheduled refueling outages, one (1) forced outage, and one (1) maintenance outage from June 2016 through May 2017. S.C. Code Ann. § 58-27-865 states that:

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation facility or system, as applicable, if the utility achieved a net capacity factor of ninety-two and one-half percent or higher during the period under review. The calculation of the net capacity factor shall exclude reasonable outage time associated with reasonable refueling, reasonable maintenance, reasonable repair, and reasonable equipment replacement outages; the reasonable reduced power generation experienced by nuclear units as they approach a refueling outage; the reasonable reduced power generation experienced by nuclear units associated with bringing a unit back to full power after an outage; Nuclear Regulatory Commission required testing outages unless due to the unreasonable acts of the utility; outages found by the commission not to be within the reasonable control of the utility; and acts of God. The calculation also shall exclude reasonable reduced power operations resulting from the demand for electricity being less than the full power output of the utility's nuclear generation system.

Excluding all reasonable outage time pursuant to S.C. Code Ann. §58-27-865(F), DEC's net capacity factor for the review period was 101.51%.

Fuel Factors

B.14 The appropriate fuel factors for DEC to charge for the period beginning for service rendered in October 2017 and extending through service rendered in September 2018 are listed below. These factors include the South Carolina base fuel costs, environmental costs, avoided capacity and the DERP avoided cost, but do not include the regulatory fees and gross receipts tax. The Parties agree that the fuel factors will be adjusted for billing purposes to include those amounts.

Class of Service	Base Fuel Factor (¢/kWh)	Environmental Fuel Component (¢/kWh)	Avoided Capacity Component (¢/kWh)	DERP Avoided Cost Component (¢/kWh)	Combined Total Projected Fuel Factor (¢/kWh)
Residential	1.7270	0.0331	0.1183	(0.0015)	1.8769
General/Lighting	1.7270	0.0415	0.0959	(0.0005)	1.8639
Industrial	1.7270	0.0267	0.0623	0.0001	1.8161

B.15 The Parties agree that the fuel factors set forth above are consistent with S.C. Code Ann. § 58-27-865.

Other

B.16 The Parties further agree that, except as noted herein, any challenges to DEC's historical fuel costs recovery for the period ending May 31, 2017, are not subject to further review; however, the projected fuel costs for periods beginning June 1, 2017, and thereafter shall be open issues in future fuel cost proceedings held under the procedure and criteria established in S.C. Code Ann. § 58-27-865 (2015).

B.17 With regard to ORS's \$142,149 recommended adjustment in connection with the Company's Solar Rebate Program, the Parties agree the costs attributed to this sample of paid solar

rebates are subject to further review and shall be an open issue in future fuel cost proceedings held under the procedure and criteria established in S.C. Code Ann. § 58-27-865 (2015).

B.18 With regard to plant outages not complete as of May 31, 2017, and plant outages where final reports (Company, contractor, government reports or otherwise) are not available, the Parties agree that ORS retains the right to review the reasonableness of plant outage(s) and associated costs at such time as the outage is complete or when the report(s) become available.

B.19 The Parties agree that in an effort to keep the Parties and DEC's customers informed of the (over)/under- recovery balances related to fuel costs and DERP incremental costs and of DEC's commercially reasonable efforts to forecast the expected fuel factor to be set at its next annual fuel proceeding, DEC will provide to ORS, and where applicable, its customers the following information:

- a. copies of the monthly fuel recovery reports currently filed with the Commission, modified to show the monthly (over)/under-recovery and cumulative balances through the end of the forecast period;
- b. copies of the monthly fuel recovery reports currently filed with the Commission, modified to include reports of itemized monthly actual DERP incremental and avoided costs as well as monthly reports reflecting the over/under cumulative balances of DERP avoided and incremental costs;
- c. forecasts of the expected fuel factor to be set at its next annual fuel proceeding based upon DEC's historical (over)/under-recovery to date and DEC's forecast of prices for uranium, natural gas, coal, oil and other fuel required for generation of electricity. Such forecasts will be provided in the 4th quarter of the calendar year prior to the next annual fuel proceeding and in the 2nd quarter of the calendar year

of the Company's next annual fuel proceeding. DEC will use commercially reasonable efforts in making these forecasts. To the extent that the forecast data required hereunder is confidential, any party or customer, other than ORS, that requests forecasted fuel data will have to sign a non-disclosure agreement agreeing to protect the data from public disclosure and to only disclose it to employees or agents with a need to be aware of this information; and,

- d. forecasts of the expected DERP Charge to be set at its next annual fuel proceeding based upon DEC's historical (over)/under-recovery to date and DEC's forecast of DERP incremental and avoided costs. Forecasts will be provided in the same manner as B.19(c) above.

B.20 DEC agrees to examine and make adjustments as necessary to its natural gas hedging program in light of the potentially reduced volatility in the domestic natural gas market. DEC also agrees to provide monthly natural gas hedging reports to the ORS.

B.21 In Act 236, the Legislature included a specific requirement that all capacity costs that are recovered through the fuel factor must be allocated and recovered in accordance with the method used by the utility to recover variable environmental costs and included in a separate component of the fuel factor. See S.C. Code Section 58-27-865(A)(1). DEC has identified an additional category of fuel costs that can be classified as capacity costs under the fuel factor – firm natural gas transportation and storage costs. Based on its analysis, DEC proposed that these fuel costs be classified, allocated and recovered as capacity costs.

- a. The Parties agree that DEC's firm natural gas transportation and storage costs shall be classified as capacity costs for purposes of recovery under DEC's fuel factor. DEC's proposed methodology for allocating and recovering firm natural gas

transportation and storage costs established in this proceeding is consistent with the statutory requirements of S.C. Code Section 58-27-865(A)(1), as amended, and is just, reasonable, and in the public interest.

- b. In order to provide stability in the fuel factor related to the issue of the classification and recovery of capacity costs, no Party shall propose or support any changes to the types of costs classified as capacity and recovered under the capacity component of DEC's fuel factor as established in this proceeding prior to the annual review of DEC's fuel costs in the year 2022. Provided, however, that ORS may make a proposal to reclassify capacity costs if necessary due to unforeseen extraordinary economic or financial conditions that justify such a request in the public interest. If ORS concludes that such a change may be necessary due to such unforeseen extraordinary economic or financial conditions, ORS will provide reasonable advance notice to and consult with the Parties prior to making such proposal and, if ORS decides to proceed with proposing a change after such consultation, this paragraph, B.20(b), shall be deemed null and void and ORS shall be exempt from paragraph B.20(a).

C. REMAINING SETTLEMENT TERMS AND CONDITIONS

C.1 ORS is charged with the duty to represent the public interest of South Carolina pursuant to S.C. Code § 58-4-10(B) (2015). S.C. Code § 58-4-10(B)(1) through (3) reads in part as follows:

... 'public interest' means a balancing of the following:

- (1) concerns of the using and consuming public with respect to public utility services, regardless of the class of customer;

- (2) economic development and job attraction and retention in South Carolina; and
- (3) preservation of the financial integrity of the state's public utilities and continued investment in and maintenance of utility facilities so as to provide reliable and high quality utility services

C.2 The Parties agree that this Settlement Agreement is reasonable, is in the public interest, and is in accordance with law and regulatory policy. This Settlement Agreement in no way constitutes a waiver or acceptance of the position of any Settling Party concerning the requirements of S.C. Code Ann. § 58-27-865 (2015), S.C. Code Ann. § 58-40-10, *et seq.* (2015), and S.C. Public Service Commission Order No. 2015-194 in any future proceeding. This Settlement Agreement does not establish any precedent with respect to the issues resolved herein and in no way precludes any Party herein from advocating an alternative methodology under S.C. Code Ann. § 58-27-865 (2015), S.C. Code Ann. § 58-40-10, *et seq.* (2015), and S.C. Public Service Commission Order No. 2015-194 in any future proceeding.

C.3 The Parties agree to cooperate in good faith with one another in recommending to the Commission that this Settlement Agreement be accepted and approved by the Commission as a fair, reasonable and full resolution of all issues currently pending in the above-captioned proceeding. The Parties agree to use reasonable efforts to defend and support any Commission order issued approving this Settlement Agreement and the terms and conditions contained herein.

C.4 This written Settlement Agreement contains the complete agreement of the Parties. There are no other terms or conditions to which the Parties have agreed. This Settlement Agreement integrates all discussions among the Parties into the terms of this written document. The Parties agree that by signing this Settlement Agreement, it will not constrain, inhibit or impair their arguments or positions held in future proceedings. If the Commission declines to approve

the agreement in its entirety, then any Party desiring to do so may withdraw from the agreement without penalty.

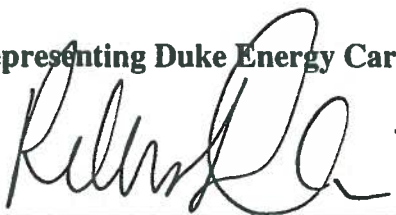
C.5 This Settlement Agreement shall be effective upon execution of the Parties and shall be interpreted according to South Carolina law.

C.6 This Settlement Agreement shall bind and inure to the benefit of each of the signatories hereto and their representatives, predecessors, successors, assigns, agents, shareholders, officers, directors (in their individual and representative capacities), subsidiaries, affiliates, parent corporations, if any, joint ventures, heirs, executors, administrators, trustees, and attorneys.

C.7 The above terms and conditions fully represent the agreement of the Parties hereto. Therefore, each Party acknowledges its consent and agreement to this Settlement Agreement by authorizing its counsel to affix his or her signature to this document where indicated below. Counsel's signature represents his or her representation that his or her client has authorized the execution of the Settlement Agreement. Facsimile signatures and e-mail signatures shall be as effective as original signatures to bind any Party. This document may be signed in counterparts, with the various signature pages combined with the body of the document constituting an original and provable copy of this Settlement Agreement.

[PARTY SIGNATURES TO FOLLOW ON SEPARATE PAGES]

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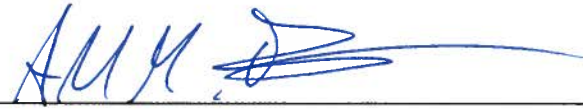
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